

**IN THE SPECIFICATION**

Applicant hereby amends the specification by replacing the original paragraph on page 10, lines 1-17 with the following amended paragraph:

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B1  
Figure 3 illustrates the pump and nozzle assembly of Figure 2 in an actuated position. As shown in Figure 3, upon application of energizing current to the coil 116, the coil, bobbin 114, extension 118, and drive member 122 are displaced downwardly. This downward displacement is the result of interaction between the electromagnetic field surrounding coil 116 by application of the energizing current thereto, and the magnetic field present by virtue of permanent magnets 108 and 110. In the preferred embodiment, this magnetic field is reinforced and channeled by core 112. As drive member 122 is forced downwardly by interaction of these fields, it contacts plunger 124 to force the plunger downwardly against the resistance of spring 130. During an initial phase of this displacement, plunger 124 is free to extend into pump chamber 148 without contact with valve member 144, by virtue of gap 146 (see Figure 2). Plunger 124 thus gains momentum, and eventually contacts the upper surface of valve member 144. The lower surface of plunger 124 seats against and seals with the upper surface of valve member 144, to prevent flow of fluid upwardly through passage 126 of the plunger, or between the plunger and aperture 138 of the pump section. Further downward movement of the plunger 124 and valve member 144 begin to compress fluid within pump chamber 148, closing inlet check valve 154.

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Applicant hereby amends the specification by replacing the original paragraph on page 10, line 27 – page 11, line 11 with the following amended paragraph:

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As will be appreciated by those skilled in the art, upon reversal of the polarity of the drive or control signal applied to coil 116, an electromagnetic field surrounding the coil will reverse in orientation, causing an oppositely oriented force to be exerted on the coil by

B2  
virtue of interaction between this field and the magnetic field produced by magnets 108 and 110. This force will thus drive the coil, and other components of the reciprocating assembly back toward their original position. In the illustrated embodiment, as drive member 122 is driven upwardly back towards the position illustrated in Figure 1, spring 130 urges plunger 124 upwardly towards its original position, and spring 158 similarly urges valve member 144 back towards its original position. Gap 126 is reestablished as illustrated in Figure 1, and a new pumping cycle may begin. Where a nozzle such as that shown in Figures 2 and 3 is provided, the nozzle is similarly closed by the force of spring 170. In this case, as well as where no such nozzle is provided, or where an outlet check valve is provided at the exit of pump chamber 148, pressure is reduced within pump chamber 148 to permit inlet check valve 154 to reopen for introduction of fluid for a subsequent pumping cycle.

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